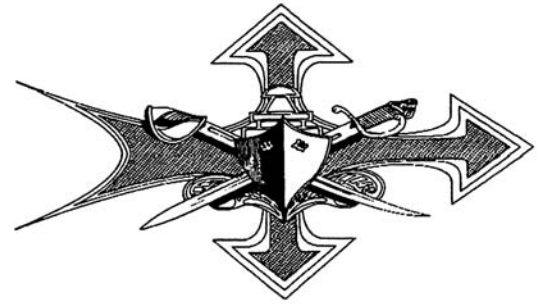


# SHIPS' SAFETY BULLETIN

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Suggested routing should include CO, XO, department heads, division officers,  
CMC, CPO mess, petty officers' lounge, work-center supervisors, and crew's mess.  
Blanks provided for initials following review:

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## Safety is a Full-Time Job

By CWO3 Brian Faulkner  
Naval Safety Center

I reported to the Naval Safety Center in March 2003 and have been part of more than 75 safety surveys. After participating in all these surveys and reading the message traffic concerning mishaps, I have learned that anything can happen at any given time. In addition, I have witnessed many actions that are discouraging and indicate that all hands don't take safety as seriously as they should. Here are a few situations to explain this view. While conducting a recent survey I encountered a young Sailor standing on a stool in the passageway changing a light bulb right next to a ladder. I stopped him and asked why he was standing on the stool. He promptly answered, "Changing the bulb. I have a safety observer standing right over there."

I asked the safety observer (who was not even close enough to assist if needed) if he could catch the 200-pound Sailor if he were to fall.

He quickly answered, "No!" They then stopped and went to get a ladder to do the job correctly. In my mind everything was now being done properly and I continued on my way up to the bridge.

My comfort was quickly eliminated when I heard a lieutenant, who happened to be his department head tell him, "You shouldn't do that with Naval Safety Center people on board!"

On my most recent trip, I conducted operational risk management/traffic safety training to a large group of young pre-com Sailors. The brief has many graphic examples of what can happen if risk management is not utilized on duty and during liberty. They included many images of injuries incurred while skate boarding without personal protective equipment (PPE). While there the safety survey team was housed in the same barracks and that very evening, while leaving the barracks, I saw five Sailors skateboarding, riding curbs and steps. I wandered over to chat with them. Each of the single Sailors recognized me from the day's earlier ORM brief. They were also fully aware of the PPE they should have been wearing. Yet, none of them was wearing any at all.

When noting discrepancies with various workcenters and programs, I have heard a few common explanations. I have run into them on countless ships and they include: "We told everyone to get all hazmat out of their spaces

**COMMANDER, NAVAL SAFETY CENTER, 375 A St. NORFOLK, VA 23511-4399**

This professional flyer is approved for official distribution to the surface force and to their appropriate staffs, schools and other organizations. The information is designed to advise Department of the Navy personnel of current and emerging safety concerns to enhance their professional development and improve operational readiness. This bulletin should not in itself be used as an authoritative document. However, it will cite the appropriate reference when available.

prior to you getting here.” “We realize we don’t have respirator protection program, but we have to paint the ship.” “We went through the check-sheets and have been preparing for you the last two weeks.” “I know it is wrong, but this is the way it has always been done here.” “I have known about the problem for months but I haven’t been able to do anything about it yet.”

So many people perceive the items I have mentioned sound far-fetched and senseless. Problem is, they are all true stories. To be honest, I hear or see at least one of them or something similar on 95% of the ships I have surveyed. With the CNO’s initiative to reduce mishaps by 50%, it is obvious there needs to be a more concentrated effort in safety for the tasks we do every day. Supervisors need to be out and about ensuring tasks are not only being done, but to ensure they are being done safely. Since our number one resource is people we have an obligation to take care of them.

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## Accoms Away!

By BMCS (SW/AW) John Upchurch  
Naval Safety Center

For most ship classes the accommodation ladder is rarely used while a ship is in her homeport. Most accommodation ladders are secured and given little attention except cosmetic cleaning. Except for LPDs and LSDs, the accommodation ladder is used only while conducting a port visit. It is then that ladders that have not been properly inspected or the required maintenance has not been performed that an otherwise preventable failure may occur.

During recent safety surveys, we have noted some common material deficiencies. These deficiencies could lead to a catastrophic failure. Deficiencies include:

- Incorrect type of hardware (Non-CRES)
- Broken stanchion, missing staples
- Broken or missing rollers
- Bent pivot pins
- Missing/wrong size pins
- Frozen feathering pins
- Incorrectly installed pins
- Cracked steps and welds
- Missing rigging charts
- Poor winch wire PMS

Another significant discrepancy noted is the application of a cosmetic coating on the ladder. The coatings range from painting to powder coating. The problem with painting the ladders is that you can't complete the inspections required by MRC 6232/005 36M-1R due the cosmetic coating on the welded joints. Additionally, the powder coating process may weaken the welded joints.

Any accommodation ladder that has a cosmetic coating requires a Departure From Specification (DFS) with a clearance date of when the 36M-1R check is next required. COMNAVSURFLANT 301856Z MAR 04 and COMNAVSURFPAC 090224Z MAR 04 provide specific guidance on submitting the DFS. Both message are available upon request. Any ladder that has cosmetic coating without a supporting DFS is considered a significant discrepancy during a safety survey.

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**Motorcycle Safety Note:** OPNAVINST 5100.12G, Navy Traffic Safety Program, requires every military operator of a motorcycle (on or off installation) and every civilian operator of a motor cycle on a naval installation to complete training approved by the Naval Safety Center.

Document the completion of the training in the individual's military service record (page 13) or civilian personnel training file.

# How Prepared are You to Evacuate a Smoke-filled Compartment?

By CWO4 Blair Fike  
Naval Safety Center

Eight of ten recent safety surveys indicate that many people assigned to fleet units, don't know how to don an EEBD and egress a space. Supervisors need to ensure Sailors instinctively know how to don an EEBD in a smoke filled or toxic environment. We need to know this cold and teach it effectively to our troops. In one ship, 22 of 27 crewmembers surveyed did not have a complete understanding of how to don an EEBD and egress a space.

Do you want to know what the real shocker was? The crewmembers were qualified on paper, but had never actually donned an EEBD. Their training consisted of a five-minute presentation by a DCFN who signed off their EEBD qualifications. Shame on us for not taking care of our people and letting this happen. If you think I'm making this up, just ask some simple EEBD/egress questions the next time you are standing in the mess line; you will be shocked!

The surface force requirement for EEBD/egress training exists in paragraph D-107d of Appendix D-107 in COMNAVSURFORINST 3502.1B, Surface Force Training Manual (SURFORTRAMAN). "All personnel shall complete emergency egress training within 96 hours of reporting aboard and every six months thereafter. This training will consist of blindfolded escape from working, berthing and watch standing spaces. Training will also include actual activation and donning of training emergency escape breathing device (EEBD)."

The training requirement for egress training also exists in para 8.2.1.4 of NTP 3-20.31, (Rev. A), Surface Ship Survivability, "All hands shall be trained in the use of the emergency escape breathing device (EEBD). Training and

emergency egress training shall be conducted every six months."

In addition to the crew, SURFORTRAMAN requires training for embarked personnel in paragraph D-108. "Commanding officers will provide basic DC instruction for Fleet Marines, other military members and contractor personnel embarked in U.S. Navy ships for a limited duration. This will include, as a minimum, emergency egress from berthing and work spaces, use of an EEBD, use of CO<sub>2</sub>, PKP and AFFF extinguishers, fire stations, compartment numbering system, general quarters stations, abandon ship stations, man overboard stations, shipboard communications systems, emergency or casualty reporting and use of the APC system for those personnel assigned mess deck duties. "

Do you know how to don an Ocenco EEBD and egress? Do you know the steps cold? Can you instruct a young Sailor on egress procedures? They're located on the front of the EEBD case.

1. Remove unit from case
2. Lift yellow lever and discard cover
3. Remove unit by pulling yellow neck strap upwards
4. Insert yellow mouthpiece, fit yellow nose cup
5. Escape
6. Fit and adjust yellow neck strap and face shield

We owe it to our people to get this right. Do real training and make sure everyone on your ship has donned a blue training EEBD. EEBDs are lifesavers ...if you know how to put one on.

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# Weapons Safety Survey

By GMC (SW) Charles Robinson  
Naval Safety Center

**T**he weapons department survey begins with a survey team in brief introducing Naval Safety Center surveyors to crewmembers and explaining how we accomplish the survey. After the in brief, the weapons department survey starts with a program to assess overall compliance with qualifications, certifications, Personnel Qualification Standards, armory logs, and the HERO bill.

The next step assesses space and system compliance including weapons storage, handling spaces, magazines, sprinkler systems, ready-service lockers, small-arms mounts, missile, and gun systems. Throughout the survey, we give special attention in educating crewmembers in recognizing hazards and preventing mishaps. Here are some problems noted during recent weapons safety surveys:

## Common Weapons Discrepancies

**Finding:** *Leakage evident from system components or joints.*

**Reference:** NAVSEA S9522-AA-HBK-010 para 5-3.1 through 5-3.4, NAVSEA OP 4 para 3-12.12.2, and MIP 5221/012.

**Recommendation:** Do your PMS! Conduct ship-wide surveys to determine the extent of this discrepancy. Provide training and conduct extensive spot checks.

**Finding:** *Various pressure gauges in sprinkler systems are improperly mounted and calibrated.*

**Reference:** NAVSEA S9522-AA-HBK-010 Appendix III-6 Para 3-3.1, 3-5.4, NSTM 504, (CRL) Calibration Requirement List. Calibration is required every 12 months for all sprinkler gauges. According to the sprinkler handbook, having sprinkler gauges out of calibration is justification for removing the sprinkler system from service.

**Recommendation:** Verify ship's CRL is correct and up to date. Conduct ship-wide surveys to determine the extent of this discrepancy. Provide training and conduct extensive spot checks.

**Finding:** *Magazine temperatures not recorded daily on temperature card and data not entered in smooth log for a permanent record.*

**Reference:** NAVSEA OP 4 para 3-12.12.3.

**Recommendation:** Don't let this one get by you. Ensure that new cards are posted monthly and that temperatures are taken and recorded daily. Conduct extensive spot checks.

## Other Weapons Findings:

- *Proper procedures not being utilized with the clearing barrel IAW Force Protection Weapons Handling Standard Procedures and Guidelines. (NTRP 3-07.2.2)*
- *Ammunition not properly stowed, tied down, or secured for sea (NAVSEA OP 4, CH 3-12.10 through 3-12.11).*
- *Lights--including battle lanterns--are inoperative or in poor condition (NAVSEA OP 4, 5-4.1 and NAVSEA S9AA0-AB-GOS-010/GSO SECTION 332).*

Once we have completed a space walk-through and program reviews, a written report of all findings is provided. Both written and electronic material of related weapons interest items is provided to aid program managers and deck-plate Sailors with their respective tasks. A wealth of material is available for download from the Naval Safety Center website at <http://www.safetycenter.navy.mil>, which includes operational risk management material, weapons survey check-sheets for self-assessment, and other safety-related materials, and links to many other helpful sites.

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## Safety Surveys Enhance Crew's Awareness on Safety

By LCDR Jerry Chapmon  
Naval Safety Center

The goal of a safety survey is to increase a ship's operational readiness by improving crew awareness in mishap prevention and occupational safety and health programs. Emphasis is placed on educating personnel to recognize safety deficiencies and hazardous conditions. In addition to increasing a ship's operational readiness, the safety survey can assist a ship in preparing for the required certifications and inspections during the training cycle.

The NAVOSH Program Manual for Forces Afloat, OPNAVINST 5100.19.D (w/chg 1) recommends an afloat safety survey every 36 months. However, paragraph 5108 of COMNAVSURFORINST 3502.1B, Surface Force Training Manual, requires a ship to have completed a safety survey within the past three years to be eligible for the TYCOM Surface Ship Safety Award (prerequisite for the CNO Surface Ship Award). Additionally, safety surveys are required before INSURV. According to the Joint Fleet Maintenance Manual, COMFLTFORCOMINST 4790.3 Rev. A, volume VI Chapter 7, a safety survey is required to be completed no more than 365 days and not less than 30 days from the date of the INSURV.

All surveys are completed in one day except carriers, LHAs, and LHDs. To schedule a safety survey, contact LCDR Chapmon at [jerry.chapmon@navy.mil](mailto:jerry.chapmon@navy.mil) or [safe-afloat@navy.mil](mailto:safe-afloat@navy.mil).

A typical safety survey starts with an in brief for the commanding officer, executive officer, department heads, command-selected escorts, and safety organization. At the conclusion of the in brief, Naval Safety Center surveyors with the escorts will commence the survey utilizing the

check sheets found on the Naval Safety Center website (<http://www.safetycenter.navy.mil>).

The survey concludes with an out brief where the commanding officer will be given a final report containing the total number of discrepancies and listing any discrepancy determined to be significant. Two enclosures to the final report are the check sheets used by each of the surveyors and a description of any of the areas the ship was not in compliance. A final letter is sent to the ship and the ship's ISIC stating the completion of the survey date and number of discrepancies found.

The safety survey focuses on training and all discrepancies found during a safety survey are supported by well-researched references. Surveyors typically spend a great deal of time conducting deck plate training to ensure understanding and compliance to the references. Additional training is also available for the zone inspection program, operational risk management with a focus on the junior Sailor, and traffic and off-duty recreation safety.

Safety surveys are required and depending on travel schedule and availability of survey team members, a safety survey can be conducted at any interval whenever a ship feels they could benefit from a day spent with safety professionals.

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## Damage Control Generator

By CWO3 Blair Fike  
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The Pramac generator set model ES5500-X has been selected as the emergency power source aboard ship. The portable generator allows running of 115V equipment to support required damage control and fire fighting actions. Typical uses include supplying power to battery chargers, radios, emergency lighting,



and de-smoking equipment. Since the fuel tank is detachable, the generator can be stowed anywhere that allows for easy access and is out of the weather. Ship classes receiving these damage control generators include guided missile cruisers (CG), guided missile destroyers (DDG), guided missile frigates (FFG), amphibious command ships (LCC), and salvage ships (ARS). It is important to note that force protection is also supplying certain ship classes with an almost identical generator set. The only difference between the two generators is the damage control generator has a red cover with yellow lettering.

Six of eight recent safety surveys indicate that the generator set is not being properly maintained. We find that after ships receive the generator set, it is stashed away in a repair locker without start up maintenance or an operational test ever being completed. Most ships did not carry PMS coverage for the generator. Maintenance for the generator set is covered under PMS MIP 6641/029 and also includes start up maintenance (SU-1), engine oil and filter maintenance, (Q-1 and A-1R) fuel and air filter maintenance, (A-2 and R-2), and lay up maintenance (LU-1). Additional tips for the generator are available at the Navy's damage control website: <http://www.dcfp.navy.mil>

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## **The Hits From Coast-to-Coast on Electrical Workbench**

By EMC (SW/AW) Manuel P. Carretero  
Naval Safety Center

Ship safety surveys and correspondence point to a trend that electrical workbenches needed a lot of attention in maintenance and supply support to keep them operational

a. Electrical workbenches not properly grounded and insulated. This discrepancy covers these particular areas: knee knockers, horizontal and frontal areas of the bench that require 1/8- or 3/8- inch insulation.

b. Electrical workbenches missing required safety signs (CPR, 4 Step CPR Placard, Set, 0118-LF-020-2700, Electrical Safety Precaution (Safety Precautions Electrical 14" X 9", 0118-LF-019-6100), rescue sign (Warning for rescuing shock victims, 12 1/2" x 15, 0118-LF-020-2700), electrical or mechanical workbench sign (Fabricate as per NSTM 300 App. H) and high voltage sign (Danger High Voltage, 4" x 2 1/2", 0177-LF-225-2800

c. Electrical workbenches with improperly mounted disconnect switches. The switch should be mounted 48 to 54 inches above the deck, painted with a red bulls eye, and offset from the workbench.

d. Electrical workbenches with metallic hardware installed vice nylon/plastic non-ferrous material used as hinges, screws and handle. The picture below shows an electrical workbench that needs attention. Items stored on top of and below the workbench can make your bench unsafe for any electrical work.



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## Did You Know?

By CDR Walter L Banks  
Naval Safety Center

Did you know that the U.S. Navy has adopted U.S. Coast Guard's guidelines for preventing unwanted introduction of aquatic organisms and pathogens into coastal waters? The new standards decrease the possibility of introduction of cholera and other pathogens into U.S. waters. Pollution of this type is of particular concern in harbors, rivers, inlets, bays, and the open sea within 12 nm of the entrance to waterways. Many of these organisms can be taken up with ballast water and transferred to different locations causing damage to the ecosystem. These species are more prevalent within 3 nm from the shore and within the polluted areas.

If it is necessary for a surface ship to load ballast water in an area that is either potentially polluted (as defined in paragraph 19-10.2 of OPNAVINST 5090.1B, *Navy Environmental and Natural Resources Program Manual*) or within 3 nm from the shore (e.g., amphibious ships operating in such waters and ballasting to operate landing craft or tankers ballasting to replace offloaded cargo), then the ship shall pump the ballast water out when outside 12 nm from shore. They also must fill the tank(s) with clean seawater and pump twice before the next entry within 12 nm from shore. This is because residual water remains in a tank after emptying which could contain unwanted organisms that could multiply and transfer during the next ballasting evolution. All evolutions discussed in this article shall be documented in the ship's Engineering Log.

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## Back Injury Prevention

By GSCS (SW) Joseph Petraglia,  
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Another Sailor injured his back! The injury did not happen while lifting anything at work but at home. While sitting down, he leaned forward to tie his shoes and ouch, the pain began. Incredible isn't it? The Sailor I am referring to is me.

After more than twenty-two years of serving my country, I never had experienced a back injury. I didn't realize I was hurt until the following morning. I was still capable of moving around with no limitations but by mid day the pain nearly immobilized me. I then crawled to medical for evaluation.

Back injuries are the second most common cause of missed days of work in the United States! (Only a common cold causes more missed workdays.) According to the Bureau of Labor Statistics, more than one million workers suffer back injuries each year, and back injuries account for one of every five workplace injuries or illnesses.

If you ever injure your back, understand that most episodes of back pain resolve within a few weeks. Unfortunately, back pain can be among the most difficult and frustrating problems for patients and their doctors. There is no "magic bullet" for treating back injuries. Most individuals recover adequately by simply avoiding strain to their spine. Your doctor may prescribe medication for the pain but only time and restriction from lifting objects and jerking movements will enable you to recover.

### What is back pain?

Back pain is broken down into two specific types, muscle strain and lumbar sprain.

*Muscle strain* occurs when the muscle fibers are abnormally stretched or torn.

*Lumbar sprain* occurs when the ligaments that hold the bones together are torn from their attachments.

Differentiating a strain from a sprain can be difficult, as both injuries will show similar symptoms. Many doctors refer to these two types of injuries as a category called musculoligamentous injuries of the lumbar spine. The prognosis and treatment are the same for both type injuries.

It is important to know that using improper lifting techniques is not the only cause for back injuries. Some well-known factors that contribute to low back pain include:

- Poor conditioning
- Obesity
- Smoking
- Improper use/lifting technique
- Sudden forceful movement
- Twisting the back in an unusual manner

Improper lifting technique can lead to back, leg and arm pain. Poor technique can cause both acute injury, and serious chronic effects. Learning the right way to lift will help you avoid these problems. Also, as we age, the muscles in our backs lose their strength and ability to function. One of the disks in your spine can "slip" out of place and press on the nerves in your back. Standing, sitting, or lying down incorrectly will put strain on your spine.

Muscles both support the spinal column as well as the weight of the upper body. There are five lumbar vertebrae, which are connected by tough ligaments that help to maintain the position of the spinal column. These muscles, ligaments, and bones all work together to provide control and strength for nearly all activities. The lumbar spine and its muscles are needed for most all movements and activities. For this reason, the lumbar spine is prone to injury, and when an injury has been sustained, we are prevented from performing many activities.

### **Tips on lifting objects:**

Plan ahead and utilize ORM. If you know what you are doing ahead of time, then make adjustments to avoid an injury. Never bend your back to pick up something. Proper lifting technique is important.

- Hold the object you are lifting close to your body and position your feet shoulder width apart.
- Bend your legs and keep your back straight.
- Tighten your abdominal muscles as you lift. This will maintain your back in a good position.
- Lift with your legs. Your legs are a lot stronger than your back.
- Don't twist or bend. If you have to turn, stop and turn in small steps and then continue walking.
- Keep your chin up as you lift. This will help prevent bending your back while lifting.
- If you are straining, seek assistance from a shipmate.
- If the object is too heavy, use equipment designed for lifting heavy objects.

The following web sites provide excellent information on back injuries and prevention:

<http://www.osha.gov>  
<http://healthlink.mcw.edu>  
<http://www.spine.health>  
<http://www.spineuniverse.com>  
<http://www.nlm.nih.gov>  
<http://www.safetytrainingnetwork.com/products/backinjuries.shtml>

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